Magnetism

2-5 The student will demonstrate an understanding of force and motion by applying the properties of magnetism. (Physical Science)

Key Concepts: magnets, poles, attract, repel

Supporting Content Websites

BBC
http://www.bbc.co.uk/schools/digger/7_9entry/8.shtml
This interactive activity lets students investigate the effects of magnets on different types of materials and how a magnet can separate mixtures. (2-5.1, 2-5.3)

BBC
http://www.bbc.co.uk/schools/revisewise/science/physical/12_act.shtml
An interactive activity for students to explore properties of magnetism, including what is attracted to a magnet and why. (2-5.2, 2-5.3)

Canada Science and Technology Museum
http://www.sciencetech.technomuses.ca/english/schoolzone/magnets.cfm
Although this website is linked to a museum exhibit "An Invisible Attraction" it contains a great number of resources which include, background information for magnets, lesson plans, student activities and relevant websites. (2-5.2, 2-5.3, 2-5.4)

Discovery Education http://school.discovery.com/curriculumcenter/magnetism/peakinterest.html
This website has a variety of resources about magnets including facts to peak students' interest, for example, how lobsters are tracked using magnets. (2-5)

http://www.geocities.com/SunsetStrip/Palms/8423/magnet.htm
For information on everything magnetic from simple magnets through the history of man's ongoing explorations of the place magnets play in life (2-5) NOTE: Some information too advanced for students; appropriate for teacher background information.

http://www.lex3.k12.sc.us/blps/Magnets%20Webquest/Magnets_Webquest.html
This site contains a magnet webquest. Several of the links on the page no longer work and some now require membership. However, this is still an excellent resource for providing a sample webquest with good sites for basic information about magnets. (2-5.1, 2-5.3)

http://www.rapides.k12.la.us/region6tltc/intech2/IS%20BIGGER%20BETTER/What%20are%20some%20uses%20of%20magnets.htm
This website examines some ways in which magnets are used. (2-5.4)

Suggested Literature

Branley, Franklin M. (1996). *What Makes a Magnet?* New York: Harper Collins
ISBN – 0064451488
Lexile Level – 640L
Describes how magnets work and includes instructions for making a magnet and a compass. (2-5.4)

Bryant-Mole, Karen (1998). *Magnets.* Des Plaines, IL: Heinemann Interactive Library
ISBN – 1575726297
Text and experiments introduce the scientific properties of magnets, examining such topics as their strength, magnetic poles, and the making of magnets. (2-5.2)

Carmi, Rebecca (2001). *The Magic School Bus: Amazing Magnetism.* New York: Scholastic
ISBN – 0439314321
Lexile Level – 570L
Ms. Frizzle's class challenges Mr. O'Neatley's class to a science contest with amazing and magnetic results. (2-5.1, 2-5.3)

Fowler, Allan (1995). *What Magnets Can Do.* Chicago: Children's Press
ISBN – 0516060341
Lexile Level – 580L
A beginning introduction to magnets and magnetism. (2-5.4)

Gibson, G. (1995). *Playing with Magnets.* London:Franklin Watts Ltd.
ISBN 1-5629-4633-1
This is a collection of exciting hands on projects. Double-page topic treatments address whatmagnetism is, how and why it works, attraction and repulsion, the earth's magnetic field, compasses, and electromagnets.

Pipe, Jim (2006). *Magnets: Magic Forces.* Mankato, MN: Stargazer Books
ISBN – 1596040157
This book introduces magnets, discusses magnetism, and tells a story about Billy and his friends using magnets to amaze their classmates. (2-5.1, 2-5.2, 2-5.3)

Riley, Peter (1999). *Magnetism.* New York: Franklin Watts
ISBN – 0531145069
Lexile Level - IG980L
Introduces the basic science behind magnetism and presents experiments to show how it works. (2-5.1, 2-5.2, 2-5.3)

Rosinsky, Natalie M. (2003). *Magnets: Pulling Together, Pushing Apart.*
Minneapolis: Picture Window Books
ISBN – 140480014x
Provides information about magnets, explaining how and why they work, where they are found, and how they are used, and includes experiments and a glossary (2-5.4)

Royston, Angela (2003). *Magnetic and Nonmagnetic.* Chicago: Heinemann Library
ISBN – 1403408556
This book uses illustrations and simple text to teach young readers about the differences between magnetic and non-magnetic items. (2-5.1, 2-5.3)

Suggested Data Streaming Video

http://www.scetv.org/education/streamlinesc See your school's media specialists for User ID and User Password. Also, you may call Ms. Donna Thompson at ETV at 803-737-3322 for a User ID and User Password.

The Magic of Magnetism
ETV Streamline SC
What is a magnet?
The properties of a magnet are described.
00:45 to 2:25
(2-5.1)

The Magic of Magnetism
ETV Streamline SC
Poles
The concept of magnetic poles is introduced
2:26 to 3:45
(2-5.2)

The Magic of Magnetism
ETV Streamline SC
Magnets Push and Pull
Children examine how magnets may attract and repel objects.
6:51 to 8:44
(2-5.3)

The Magic of Magnetism
ETV Streamline SC
Kinds of Magnets and Uses of Magnets
Children look at a variety of magnets and their uses.
8:45 to 10:58
(2-5.4)

Elementary Video Adventures: Understanding the World
ETV Streamline SC

Magnetism
Describes how magnets work and the uses of magnets.
9:40-17.25
(2-5.4)

Junior Electrician: Magnetism
ETV Streamline SC
What do magnets attract?
Students learn that magnets attract some objects and not others.
2:09 to 3:54
(2-5.3)

Junior Electrician: Magnetism
ETV Streamline SC
Attract and Repel
Students learn that similar poles repel and different poles attract.
12:24 to 13:32
(2-5.3)

Magnets: A First Look
ETV Streamline SC
What kinds of things do magnets attract?
Students learn that magnets attract some objects and not others.
1:00 to 3:02
(2-5.3)

Magnets: A First Look
ETV Streamline SC
Does a magnet have to touch something to attract it?
Students learn how magnets attract through other things such as paper, wood.
3:03 to 4:59
(2-5.1)

Magnets: A First Look
ETV Streamline SC
Similar magnetic poles repel, different magnetic poles attract
Explains that magnets have poles; demonstrates that two poles that are alike repel each other and that two poles that are not alike attract each other.
7:14 to 10:05
(2-5.2)

Career Connections

Artist
An artist can be a painter or a photographer who creates drawings or designs or pictures. Artists and photographers are the people responsible for creating the designs that you can see on many of the magnets you see in home or school. (2-5)

Advertiser
Advertisers are people that attract public attention to a product or business. Many times advertisers will put information on magnets so they can promote businesses. You may have magnets in your house that give numbers for the hospital or your favorite pizza restaurant. (2-5)

Rancher
A rancher raises livestock like cows or sheep. A rancher will feed a cow magnet to a cow to help it from getting an infection. As cows graze they will eat pieces of metal such as barbed wire or nails the magnet will attract pieces of metal so that it will not get lodged in the cow's digestive system. (2-5)